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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Minneapolis, MN 55402-0903

EXAMINER

ARNOLD, ERNST V

ART UNIT	PAPER NUMBER
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1613

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11/26/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/518,784	Applicant(s) BIERING ET AL.	
	Examiner ERNST V. ARNOLD	Art Unit 1613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-20, 22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-20, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-13 and 21 have been cancelled. Claim 23 is new. Claims 14-20, 22 and 23 are pending and under examination. Applicant's amendments have necessitated a new ground of rejection. Accordingly, this Action is FINAL.

Withdrawn rejections:

Applicant's amendments and arguments filed 11/8/10 are acknowledged and have been fully considered. Any rejection and/or objection not specifically addressed below is herein withdrawn. Claims 14 and 16 were rejected under 35 U.S.C. 102(b) as being anticipated by Fowler et al. (US 5635469). Applicant has amended the claims and the rejection is withdrawn.

The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set of rejections and/or objections presently being applied to the instant application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 20, 22 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 20 recites:

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formula $R^2-O-CO-(CH_2)_2-CH(NH_2)-COOH$ to

It is unknown what R^2 might be since it is not defined in this claim or in claim 14. Therefore the metes and bounds of the claim are unclear. Claims 22 and 23 are rejected as indefinite because they are based on an indefinite base claim. The claims will be examined as they read on glutamic acid.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 14-20, 22 and 23 remain/are rejected under 35 U.S.C. 103(a) as being unpatentable over Fowler et al. (US 5635469) and Buskirk et al. (US 5856290).

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

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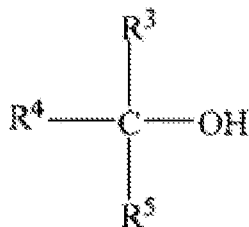
the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Applicant claims:

14. (Currently Amended) A water-based foam disinfectant comprising:
 - a) about 0.1 to about 10% by weight of a surfactant system comprising:
 - (i) at least one nonionic surfactant; and
 - (ii) at least one amphoteric surfactant,wherein the nonionic surfactant and amphoteric surfactant are capable of generating foam in the presence of an amine;
 - b) a first antimicrobial agent containing an amino group, and
 - c) a second antimicrobial agent,

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wherein the second antimicrobial agent is selected from the group consisting of a low molecular weight alcohol having the formula



where R³, R⁴ and R⁵ independently represent hydrogen atoms, or alkyl groups having 1 to 3 carbon atoms, the total number of carbon atoms being not greater than 6.

wherein the low molecular weight alcohols, or mixtures thereof, constitute a total of 20 to 50 wt% based on the overall disinfectant.

Determination of the scope and content of the prior art

(MPEP 2141.01)

Fowler et al. teach **foam** compositions with from about 0.1% to about 20% of a surfactant mixture of nonionic and amphoteric surfactants that can also comprise one or more antimicrobial actives (Abstract; Examples I-VIII; and claims 1-13). Surfactant that can be used include a wide variety of amphoteric and nonionic surfactants (column 4, lines 53-65) such as alkyl polyglycosides (column 5, lines 1-15) and ethoxylates of fatty alcohols (column 5, lines 30-56 and column 7, lines 25-37). Especially preferred amphoteric surfactants are betaines which is synonymous with 'acetobetaines' (column

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7, lines 1-16). Cationic quaternary ammonium compounds are also taught (column 7, lines 40-67 and column 8, lines 1-42 and claim 7). Fowler et al. teach alkoxylation of non-ionic surfactants preferably ethoxylated or propoxylated (column 5, line 57 through column 6, line 19).

Buskirk et al. teach disinfectant cleaner compositions having alkyl polyglycosides and N-substituted propylene diamines with linear alkyl groups with 6 to 22 carbons (Abstract; column 5, lines 7-16; Table 3 and claims 1-3). With regard to claim 20, disinfectant 1 is the reaction product of coconut propylene-1,3-diamine with L-glutamic acid and fatty alcohol ethoxylates are taught (column 3, lines 22-42; column 4, lines 1-5 and column 6, lines 30-50). With regard to claim 23, Buskirk et al. teach optionally further reacting the products obtained in the reaction with ethylene oxide or propylene oxide under alkoxylation conditions (column 3, lines 36-39). Organic solvents such as alcohols of 1 to 4 carbons are taught including ethanol, propanol and isopropanol in the amount of about 5 to 40 wt % (column 5, lines 49-60). Quaternary ammonium compounds are taught (column 4, lines 13-27). Buskirk et al. teach 0.1 to 20 wt% of the alkyl polyglycoside (note that while Buskirk et al. teach oligosaccharide it is still polymeric) and 0.05 to 20 wt% of fatty alcohol ethoxylate and a combination of disinfectant substances in a quantity of 0.01 to 5 wt% (column 4, lines 55-67). Betaines are taught for use in the invention (Table 3).

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

1. The difference between the instant application and Fowler et al. is that Fowler et al. do not expressly teach a single embodiment that includes fatty alcohol ethoxylates in the composition in the ratio instantly claimed.

2. The difference between the instant application and Fowler et al. is that Fowler et al. do not expressly teach adding the antimicrobial agent of instant claim 20 or alcohols in the amount of 20 to 50 wt% to the foam composition. This deficiency in Fowler et al. is cured by the teachings of Buskirk et al.

Finding of prima facie obviousness

Rational and Motivation (MPEP 2142-2143)

1. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add fatty alcohol ethoxylates in the amounts instantly claimed, as suggested by Fowler et al., and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Fowler et al. suggest adding fatty alcohol ethoxylates and it is simply a matter of routine optimization by the ordinary artisan. The total surfactant mixture can be from about 0.1% to about 20% of the composition. Thus, one of ordinary skill in the art can envision a composition with 12% fatty alcohol ethoxylate; 5% alkyl polyglycoside; and 3% betaine, which is equivalent to 6:2.5:1.5 of each component when divided by 2, and falls within the instantly claimed ratio. The amount of a specific ingredient in a composition is clearly a result effective parameter that a person of ordinary skill in the art would

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routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ. It would have been customary for an artisan of ordinary skill to determine the optimal amount of each ingredient needed to achieve the desired results. Thus, absent some demonstration of unexpected results from the claimed parameters, the optimization of ingredient amounts would have been obvious at the time of applicant's invention.

2. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add the antimicrobial agent of instant claim 20 or alcohols in the amount of 20 to 50 wt% to the foam composition, as suggested by Buskirk et al., and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Fowler et al. teach adding antimicrobial agents and Buskirk et al. teach the instant compounds of claim 20 as antimicrobials. Furthermore, ethanol is taught as a solvent for such antimicrobial compositions by Buskirk et al. within the amounts instantly claimed and is known in the art for its antimicrobial activity. "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Response to Arguments:

Applicant asserts that Buskirk fails to overcome the deficiencies of Fowler because neither reference discloses or makes obvious a composition where low molecular weight alcohols, or mixtures thereof, constitute a total of 20 to 50 wt% based on the overall disinfectant. Respectfully, the Examiner cannot agree because Buskirk suggests using from about 5 to 40 wt% low molecular weight alcohols in the compositions as discussed above which overlaps the instantly claimed 20 to 50 wt% range (column 5, lines 49-60).

No unexpected results have been shown and synergy has not been argued. Respectfully, Applicant's arguments are not persuasive and the rejection is maintained.

Conclusion

No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERNST V. ARNOLD whose telephone number is (571)272-8509. The examiner can normally be reached on M-F 7:15-4:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Kwon can be reached on 571-272-0581. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ernst V Arnold/
Primary Examiner, Art Unit 1613